



PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

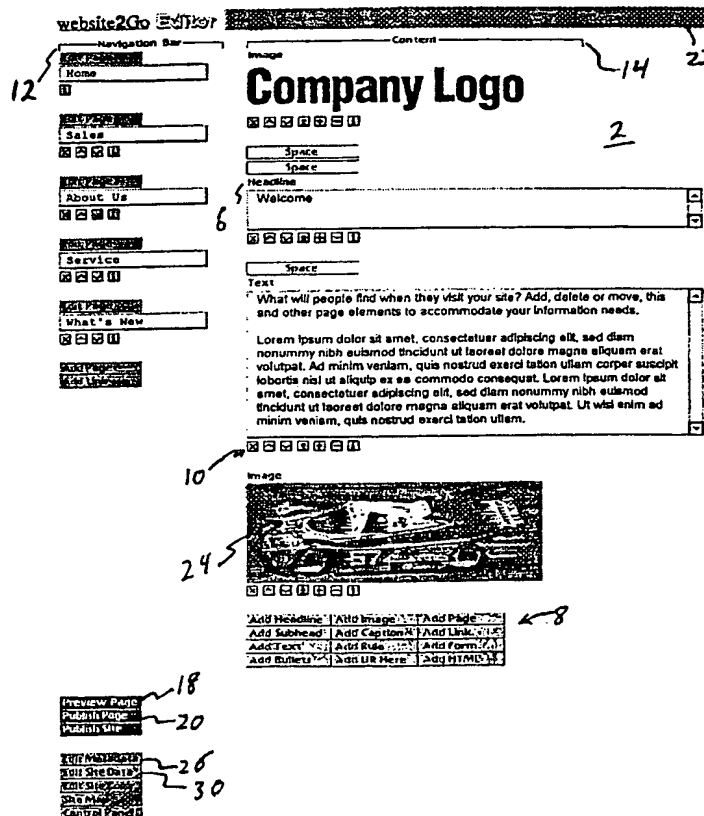
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : G06F 17/30		A2	(11) International Publication Number: WO 00/57314
			(43) International Publication Date: 28 September 2000 (28.09.00)
(21) International Application Number: PCT/US00/07873 (22) International Filing Date: 24 March 2000 (24.03.00) (30) Priority Data: 60/126,013 24 March 1999 (24.03.99) US (71) Applicant (for all designated States except US): ATOMICWEB [US/US]; 7713 14th Street, N.W., Washington, DC 20012 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): CHAMBERS, Stephen, E. [US/US]; 7713 14th Street, N. W., Washington, DC 20012 (US). DEAR, David [US/US]; 46 Seabreeze Rd., Ocean Pines, MD 21811 (US). (74) Agents: DUJMICH, Louis, C. et al.; Ostrolenk, Faber, Gerb & Soffen, LLP, 1180 Avenue of the Americas, New York, NY 10036 (US).		(81) Designated States: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published Without international search report and to be republished upon receipt of that report.	

(54) Title: SYSTEM FOR CREATING WEB SITES USING BROWSER

(57) Abstract

A web site development software program provides an editor for modifying templates for each type of element that can be added to published web pages. The template includes various content areas, such as navbar, main content, and sidebar. The location of content areas in the template being edited are the same as the locations of these areas in the published page. Modification of the template defines a unique name for each element added to the content areas, and unique identifier for the element. The hierarchy of page elements that are added is tracked automatically, and an auto-navigation element is generated for each page to allow for simple linked navigation of the web site. The template determines which content areas can contain each type of element, based on size, for example. All text elements can be edited in the editor. All form images such as buttons to add new elements and buttons to act on existing elements are live such that, when clicked, result in immediate updates to the page and database. Button palettes of available elements and available editing functions are provided. From the editor, each page can be previewed exactly as it will appear without impacting the live site. Each web page, or all web pages at once, can be published to the live web site directly from the editor.



FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav	TM	Turkmenistan
BF	Burkina Faso	GR	Greece		Republic of Macedonia	TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's	NZ	New Zealand		
CM	Cameroon		Republic of Korea	PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakhstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

SYSTEM FOR CREATING WEB SITES USING BROWSER

This application claims the benefit of U.S. Provisional Application Serial No. 60/126,013 filed March 24, 1999.

BACKGROUND OF THE INVENTION

5 The present invention relates to systems for creating Web sites using an Internet browser and pre-defined templates. More specifically, the present invention relates to an editing system for web site development that is accessible over the Internet using a web browser for modifying pre-defined templates stored in a database to create individual web sites.

SUMMARY OF THE INVENTION

10 The present invention provides a development software program that includes a template for each type of element that can be added to pages of a network site, such as a site associated with a URL on the World Wide Web. The templates have content areas and define a unique name for the element and a unique identifier for the element. Pre-defined content areas on each page of the web site can contain each type of element.

15 The invention provides various useful features, including a live WYSIWYG ("what you see is what you get") editor. Modular code design of the invention is reusable, extensible, and has faster execution. The editor preferably is integrated with an SQL database and with web site control panels. The invention provides secure access for editing, and allows a user to build multi-level web sites having unlimited depth. Automatic "You are here" navigation is provided. META data entry per web page is also featured. A mini logo optionally is displayed on all pages (can be turned off per page), and a page

20

header optionally is displayed on all pages (can be turned off per page). A navigation bar allows for easy top level navigation.

User-selectable appearance schemes that ensure color coordination are provided. Automatic resizing of uploaded images to fit column width is available. Live edit of all page elements is featured. Users can easily add various page elements to different content areas by selecting from palettes of available elements. Content grids allow for standard page looks, but can be modified. Templates afford ease of getting started. Context sensitive help is tied to each element type.

A preview mode allows the user to see changes exactly as they will appear before committing to publication on the Internet. One or all pages can be published to generate actual HTML pages with working links. Action palettes provide buttons for executing available editing functions. For example, easy up/down sorting of elements is provided using arrow icons. In addition, simple add/remove of vertical spacing between elements is provided by +/- icons.

Other features and advantages of the present invention will become apparent from the following description of the invention which refers to the accompanying drawings.

BRIEF DESCRIPTION OF THE PREFERRED EMBODIMENTS

Fig. 1 illustrates a screen shot of an edit page from a web site development site according to the present invention.

Fig. 2 illustrates a screen shot of a published version of the edited page shown in Fig. 1.

Fig. 3 illustrates a screen shot of an alternative Edit page according to the present invention.

Fig. 4 illustrates a screen shot of a color scheme editing page according to the present invention.

Fig. 5 illustrates a screen shot of an Add Image page according to the present invention.

Fig. 6 illustrates a screen shot of an Edit Metadata page according to the present invention.

5 Fig. 7 illustrates a screen shot of an Edit Site Data page according to the present invention.

Fig. 8 illustrates a screen shot of a web site listing pages of a web site development site according to the present invention.

10 Fig. 9 illustrates a screen shot of a published version of a People Overview page hyperlinked from the page of Fig. 1 according to the present invention.

Fig. 10 illustrates a screen shot of a published version of a Manager page hyperlinked from the page of Fig. 9 according to the present invention.

15 Figs. 11-12 illustrate a block diagram for Edit Page functions of the present invention.

Fig. 13 illustrates a block diagram for Edit Navbar functions of the present invention.

20 Fig. 14 illustrates a block diagram for Adding Elements functions of the present invention.

Fig. 15 illustrates a block diagram for You Are Here functions of the present invention.

Fig. 16 illustrates a block diagram for Display Elements For Edit functions of the present invention.

25 Fig. 17 illustrates a block diagram for Display Action Palette function of the present invention.

Fig. 18 illustrates a block diagram for Display Element Palette functions of the present invention.

Fig. 19 illustrates a block diagram for Build Page functions of the present invention.

Fig. 20 illustrates a block diagram for Display Image Elements function of the present invention.

5 Fig. 21 illustrates a block diagram for Site Map functions of the present invention.

Fig. 22 illustrates a block diagram for Update Page functions of the present invention.

10 Fig. 23 illustrates a block diagram for Update Navbar functions of the present invention.

Fig. 24 illustrates a block diagram for Update Elements functions of the present invention.

Fig. 25 illustrates a block diagram for Dispatch functions of the present invention.

15 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

1. General Description

20 The present invention provides on-line Internet users with a system accessed through a browser running on a computer workstation by which the user can easily create a complex, multi-layered web site. The system can be combined with web hosting and offers a suite of web tools including a unique "wysiwyg" editor. The service can be provided, for example, on a subscription basis.

25 Through the use of a series of templates, which have been created for the user to choose from, the user can build a web site in minutes by pointing and clicking to customize the templates and generate a unique web site. The templates obviate the need for the user to know any programming language such as HTML, CGI, Perl scripting, etc.

The system consists of a dynamic platform which includes site-building mechanisms that have been integrated into existing templates housed on

a database served by a UNIX server. The end user, such as a corporation or a single individual, accesses the system by paying a monthly fee, for example, for the hosting and building of the site.

5 An array of pre-designed templates with different colors, type styles and other options to choose from are available for the user to build the site. Personal preference for design configurations drive decisions as to which features to choose, as opposed to having to have a knowledge of how to build web sites. Virtually no knowledge of web site building requirements is necessary. The user need only know the English language, for example, be able to type, or
10 alternatively, access images, from a hard drive and already have knowledge of how to use a computer.

2. Mode of Operation

The invention provides an on-line service a user accesses by paying a monthly fee, for example. Once signed up, the user can access the
15 system as an integrated package using an Internet browser. The package includes a suite of web-building and web-maintenance tools as well as web hosting. For retail applications, a web shopping development suite is used to add product descriptions and shopping cart access to the web site. According to an alternative embodiment, the system is packaged as a software program that is
20 purchased "off-the-shelf" by the user.

Preferably, the system will reside on a server, such as a Unix system, for example, as a "front end" of the custom scripts that manage the data in the database. While the custom scripts are written, for example, in CGI
(Common Gateway Interface), a protocol that defines how web servers execute
25 and exchange data with external programs, they are uniquely created in the present invention because they are truly "wysiwyg."

3. The process

The following features are provided in the system of the present invention:

WYSIWYG editing capability

5 This feature means that different functionalities are literally "embedded" in specific locations on the "editing" page so that the editing page "looks" exactly like the page that the user is building. See Figs. 1 and 2, for example. The functionality is controlled by different custom designed scripts that work together in such a way that the user produces an integrated final product
10 (i.e., a new page). Advantageously, the user need not constantly go back and forth between the "editing function" and the page that she is building to see the results. This avoids using tedious "trial and error" to finally produce a page. As a result, with the wysiwyg editing tool of the present invention, when the user selects a new headline, for example, that headline is typed into a specific place on
15 the editing page template; and when the user selects "publish," that same headline is in the exact place on the new page that it was on the editing function page.

Auto-navigation building system.

Tools of the present invention allow the user to build multiple pages automatically (on the "fly") without the need for the user to name each
20 page. When a page is to be added anywhere to any section, thereby creating subsections, the user merely clicks on "Add Page." The system automatically adds a page to the web site, assigns a unique identifier to the page, and keeps track of the page with "you are here" information that indicates the relationship of the page to its parent page(s). This information automatically is added to the page
25 as a page element, preferably just below the page header, to provide a dynamic linking system for navigating the web site. Thus, an infinite number of subsets, and pages to these subsets, may be created, without the need for the user to identify or keep track of the page being generated. Additionally, the user always

knows where she is anywhere in this process. Consequently, the invention combines a "you are here" concept with a multiple level navigational building tool in a unique, user-friendly way.

Unlimited building tool.

5 Because of the first two features, there is no limit to the size of the site that can be built. Accordingly, it is practical for a large corporate entity to use without limitation. However, the present invention can be used by single individuals or huge corporations. Larger sites merely require more throughput, and thus possibly would be charged more for hosting, for example.

10 The following are terms commonly used in the present system:

Relational data

 All data preferably is stored in an SQL relational database for fast, efficient storage and retrieval. This modular approach facilitates both backward compatibility and future enhancements. SQL standards ensure long term
15 availability and a wide variety of vendors for the underlying database engine.

Element

 Each web page will consist of one or more elements, such as a headline, block of text, image, or link to another site. Elements currently implemented include:

20

- | | |
|-----------------|------------------------------|
| • Bullets | • Image |
| • Caption | • Link |
| • Form | • Mini Logo |
| • Generic | • Product Descriptor/Graphic |
| 25 • Headline | • Rule |
| • HTML | • Shopping Cart |

- 8 -

- Subhead
- Text
- Thumbnail Graphic
- You Are Here

5 **Element Template**

For each type of element that can be added to web pages, there is a template which defines the unique name for the element, a unique identifier for the element, and which content areas of web pages can contain each type of element. Some elements are too big for the sidebar, for instance. The identifier of a template/element is used by the edit and build scripts to determine how to display as well as store the data. Some elements have special data storage needs and even separate data tables.

10 **Modular Elements**

New elements can be integrated to add functionality to the system. Unique software can be readily added for displaying, editing and data storage for each element and its unique characteristics. This modular approach facilitates both backward compatibility and future enhancements.

15 **Page Editor**

Referring to Figs. 1 and 2, each web page is presented by a web page editor 2 (Fig. 1) in a layout that matches the final page 4 (Fig. 2). Each element on the page can be modified in the editor.

20 **Live Editor**

All text elements (e.g., headline 6, bullets, links, etc.) can be edited in the editor 2. All form images such as buttons to add new elements 8 and

buttons to act on existing elements **10** are live and when clicked result in immediate updates to the page and database.

Page Area

Each web page is divided into areas of page content. As shown in Fig. 1, two areas are defined: navigation bar (navbar) **12** and main content **14**. In Fig. 2, sidebar **16** has been added as shown in final page 4. An example of an editing page having a sidebar area **16** is shown in Fig. 3.

Preview Mode

From the page editor, each page can be previewed exactly as it will appear without impacting the live site using the Preview Page button **18**. From the preview of each page, navigation links are to other pages in preview mode rather than to live pages. This allows the editing and preview of an entire site redesign while maintaining a previous version of a live site.

Publish Mode

Each web page may be, in a single click in the page editor, published to the web site for viewing over the Internet using the Publish Page button **20**. The entire site can be published with a Publish Site button.

You Are Here

At the top of each page, there is a header **22** that shows the name of the page and all pages leading from the top level down to this page. (See Fig. 9, header **38**, and Fig. 10, header **40**, for example.) Each page in this list is a live link to the corresponding page. This header can optionally be hidden on a page by page basis, and does not appear on the home page.

Action Palette

Each element on a page can be moved up and down the page, centered, spaced relative to the element above it, or deleted. The palette of icons 10, for example, appears beneath each element with each icon representing an available editing function. This action palette is live in that the change forces an update of the page immediately. Action palette icons currently include the following:

- Add space above
- Remove space above
- Move element up
- Move element down
- Center align
- Left align
- Delete
- Help about

Element Palette

New elements can be added with a single click in the palette of buttons 8 at the bottom of each area of a page in the editor. As with all form images in the page editor, clicking on an image button in the element palette results in an immediate update to the database and editor.

Schemes

Referring to Fig. 4, a set of standard color schemes is available using editing page 23. Each web site can be set to one color scheme, for example. The color scheme can be changed for all web pages on the site with a single click.

Image Upload

Graphics such as image 24 (Fig. 1) can be uploaded to the editor and added to the web page using the image upload editor 25 (Fig.5).

Meta Editor

For each page, a set of meta data is stored that can be edited readily. A link 26 is shown at the bottom of the navigation bar 12 (Fig. 1) on each web page to click to open the meta editor 27 (Fig. 6). Data added through the meta editor is then used to build each page to improve the results from submissions to major search engines.

Site Data Editor

There is a separate edit form 28 (Fig. 4) for the shared data that will appear on all pages of the site. This data is accessible for editing using the site data link 30 (Fig. 1). The data includes information about the company 32 as displayed in the formatted page 4 (Fig. 2) such as the name of the site, mailing address and contact phone numbers.

Hierarchical Architecture

The entire collection of web pages on a site is arranged in a hierarchical fashion, with the top level pages appearing as a navigation link in the navbar 12 down the left side of each web page. This approach allows for a logical arrangement of related pages and a site map 32, illustrated by the example in Fig. 8, is available for editing as well as for publishing to the live site for end-user navigation. There is no limit to the depth of this hierarchy. Figs. 9 and 10, for example, illustrate a sub-hierarchy within the web site of a People page 34 and a Manager subpage 36 generated using the editing page of the present invention. The "you are here" elements 38 and 40 shown on Figs. 9 and 10, respectively, are automatically generated and displayed as pages are added, as described further below. Accordingly, dynamic links to parent pages from any subpage are available, and are created invisibly to the user.

Site Map

To view the site hierarchy of web pages and to navigate easily to any page in the hierarchy, site map 32 can be displayed both in the page editor and also on the published web site.

5 4. The Application

10 Figs. 11 and 12 illustrate a preferred embodiment of the edit page 2 of the present invention in block diagram form. Once the edit page function is loaded by the Web browser, a determination is made in processing block 102 as to which page is being edited. The appropriate page data is loaded in processing block 104 along with header 22, navbar 12, and a display area header for the main content area 10 in processing blocks 106, 108, and 110. In decision block 112 a determination is made as to whether this is a top level page, and "you are here" information is displayed as appropriate in processing block 114. The elements for edit and the element palette are displayed in processing blocks 116 and 118.

15 If the page being displayed is not the home page, as determined in decision block 120, an option is provided in decision block 122 to show the logo in the sidebar area by way of processing block 124, as determined by the show/hide button of processing block 126. For all pages, the sidebar elements and palette are displayed for editing in processing blocks 128 and 130. Buttons to
20 Preview Page 18, Publish Page 20, and Edit Metadata 26 are displayed in processing blocks 132 and 134.

25 Referring to Fig. 13, a more detailed diagram is illustrated of processing block 108 for editing the navbar. In processing block 140, the navbar elements are loaded, and for each navbar element at block 142, and decision is made in block 144 of the top level status of the page. Data is loaded along with the name for top level pages in processing blocks 146 and 148. Otherwise, a determination is made in decision block 150 as to whether the navbar element is a URL link, and appropriate link data is loaded and displayed in processing blocks

- 13 -

152 and 154. If the navbar element is not a URL link, an action palette is displayed in processing block 156. Buttons for adding pages and links are displayed in processing blocks 158 and 160. For all edit data on the edit screen, names of posted data contain identification for the element and the type of date for more efficient update.

Referring to Fig. 14, details for adding an element are illustrated for a selected Add operation, such as when the Add Page button or Add Link button is engaged from the navbar. A loop is taken through all of the posted form data in processing block 161. If the key is determined to begin with Add in decision block 162, the process continues to determine if the suffix indicates a logo in decision block 163, in which case the logo is uploaded at processing block 164. Otherwise, an image is identified in decision block 165 and an image upload subroutine is launched at processing block 166. Once the determination has been made that neither a logo nor an image is to be added, the element is recorded and automatically assigned a unique name identifier at processing block 167. Special data records for elements such as links, pages and subpages, and elements with text are added in processing block 168. The unique name identifier and subpage information is utilized by the "you are here" subroutine function of processing block 114 of Fig. 11 to generate auto-navigation of the web site being created, as described further below.

Referring to Fig. 15, further details are shown of processing block 114 of Fig. 11, which displays "you are here" information such as that shown at items 38 and 40 of Figs. 9 and 10.. Page data and element data for the page are loaded in processing blocks 170 and 172. In processing blocks 174 and 176, element and link data for the parent page are loaded. This is repeated until the determination is made that a top level page has been reached in decision block 178, and the generated "you are here" HTML is displayed in processing block 180. See elements 38 and 40 of Figs. 9 and 10, for example.

- 14 -

Referring to Fig. 16, details are shown of processing block 116, which displays the elements for edit. A list of elements for the content area of a page are loaded in processing block 190. For each element in processing block 192, the number of spaces before the element are determined in block 194 and displayed in block 196. Blocks 198 - 206 load template data for the element, display a label for the element, load and display element specific data for edit, and display an action palette.

Referring to Fig. 17, details are shown for displaying an action palette, such as in processing block 206. If the page is not the first page, as determined in decision block 210, Delete, Up, and Down buttons are displayed in processing block 212. If in the navbar per decision block 214, the need for centering is determined in decision block 216 and appropriate alignment buttons are displayed in processing blocks 218, 220, and 222. The help button is displayed in processing block 224. Each button is named such that "update page" can easily dispatch to the appropriate script or subroutine. An action palette appears just beneath each element in the page editor.

Referring to Fig. 18, details are shown for displaying an element palette, such as in processing block 118 of Fig. 11. In processing block 230, a list is loaded of templates that can appear in the current content area. For each template in processing control block 232, a button for adding the element is displayed in processing block 234. Certain templates can appear in each content area, so the width of the palette varies with each content area. Each element has a template record that identifies the content areas in which each element can appear.

Referring to Fig. 19, a block diagram for building web site pages is shown. Color scheme data is loaded in processing block 240. If the page is to be published in decision block 242, data is written to disk in processing block 244. Otherwise, the output is sent to the browser in block 246. The page header is displayed in processing block 248, and the navbar, content area elements, and

sidebar area elements are displayed in blocks **250 - 254**. If the decision to publish all is taken in block **256**, all pages are published in block **258**. Meta data for the page is loaded and displayed in blocks **260** and **262**. Each element has unique data to load and a unique appearance.

5 Referring to Fig. 20, a block diagram is shown for displaying image element, such as image **24** of Fig. 1. Image specifications, such as the height, width and file name are loaded in processing block **270**. Limits for the width of the current content area are loaded in processing block **272**. If the image is wider than the limit, as determined in decision block **274**, the image is scaled
10 proportionally in processing block **276**. The image HTML is displayed in processing block **278**.

 Referring to Fig. 21, a block diagram is shown for displaying the site map **32**. In processing block **280**, a list is loaded of the top level pages. For each page in control block **282**, a list of subpages for the page is loaded in block
15 **284**, and an indent is added in block **286**. For each subpage in block **288**, the page is displayed with a link in block **290**, and the subpages are shown in block **292**. The routine loops through the subpages for each page to the deepest level, showing all pages. Each level is indented from the level above.

 Referring to Fig. 22, various available page update functions are
20 shown in block diagram form. In processing block **300**, the page specifications are loaded. The update navbar and update elements functions are provided in blocks **302** and **304**. The dispatch function for launching various page functions is provided in block **306**. Spacing changes, show/hide elements, align elements, adding elements, adding navbar elements, and moving elements up and down are
25 provided in blocks **308 - 318**. The routine returns to the editor in block **320**. Each step above relates to a subroutine, such as those described below.

 Referring to Fig. 23, details are shown for the update navbar function of block **302**. In block **330**, a loop is taken through all posted data, and

- 16 -

if the key starts with “navbar” in decision block 332, the page name is saved to disk.

Referring to Fig. 24, details are shown for the update elements function of block 304. In block 340, a list of elements on the page is loaded. For each element in block 342, a determination is made if the element has text at decision block 344. If so, posted data for the element text is retrieved and saved at blocks 346 and 348. Special data for the element is detected at decision block 350. Special data is posted and saved in processing blocks 352 and 354. Special data can include, for example, links, pages and subpages, elements with text, shopping cart items, etc.

Referring to Fig. 25, details are shown for the dispatch function of block 306. In processing block 360, a loop is made through the posted data, and decisions are made in blocks 361, 364, 368, 372, and 376 as to whether the data key starts with edit, publish, preview, go, or delete, respectively. Based on the determination made, an appropriate routine is called to launch, for example, the page editor 362, build page in publishing mode 366, build page in preview mode 370, run a specified script 374, or a delete element subroutine 378.

Other subroutines are called from the update page processing blocks shown in Fig. 25 to execute the functions shown. For example, to add an element, the subroutine loops through the posted form data, and if the key starts with “Add”, and the suffix is “logo,” an upload logo subroutine is launched. If the suffix is “image,” the image subroutine of Fig. 20 is launched. Otherwise, the element record is added, along with special element data as needed.

Similarly, a subroutine is provided to move elements up or down by resorting the list of elements with the selected element moved accordingly. Spacing between elements is executed by a subroutine to add or delete line spaces before an element. Elements can be selectively shown or hidden by calling the subroutine using a key starting with “hide” or “show” and setting the element as hidden or visible. Elements can be aligned center or left, for example, by

selecting the appropriate key. Similarly, deleting elements is made possible by an appropriate subroutine that preferably prompts the user to be sure that a delete function was intended. If subpages are involved in the delete, the subroutine would loop to delete all lower related subpages.

5 Although the present invention has been described in relation to particular embodiments thereof, many other variations and modifications and other uses will become apparent to those skilled in the art. It is preferred, therefore, that the present invention be limited not by the specific disclosure herein, but only by the appended claims.

WHAT IS CLAIMED IS:

1. A web site development software program for use by a user comprising a database containing pre-defined templates for each type of element that can be added to web pages of the web site by the user, the database being accessible by a network server accessible over the Internet, the template being
5 presented to the user over the Internet using a browser, the template having content areas, and an editing system for viewing the templates and adding elements, the system defining a unique name identifier for each added element, wherein the content areas can contain each type of element, the template being modified by the user using the editing system and subsequently being stored in
10 modified form by the user for public access over the Internet.
2. The web site development software program of claim 1, wherein each web page is divided into areas of page content.
3. The web site development software program of claim 2, wherein the areas of page content include a navbar, a main content, and a sidebar.
4. The web site development software program of claim 1, wherein locations of elements in content areas viewed by the user using the editing system are identical to the locations of the elements stored in modified form by the user and publicly accessed over the Internet.
5. The web site development software program of claim 1, wherein page elements added to the web site using the editing system by the user are provided with an identifier generated by the editing system, related pages are tracked by the editing system, and an element is generated by the system for each page displaying links to the related pages.

6. The web site development software program of claim 1, further comprising action palettes displayed on the templates, the action palettes comprising user selectable buttons for editing the templates using the editing system.

7. A computer-readable medium having stored thereon a plurality of sequences of instructions comprising instructions causing a computer processor to perform the steps of accessing a database containing pre-defined templates for each type of element that can be added to pages of a web site by a user, the database being accessed over the Internet by a network server, presenting the templates to the user using a browser, the template having content areas and defining a unique name for each added element and a unique identifier for each added element, wherein the content areas can contain each type of element, accepting modifications to the templates by user, and subsequently storing the templates in modified form for public access over the Internet.

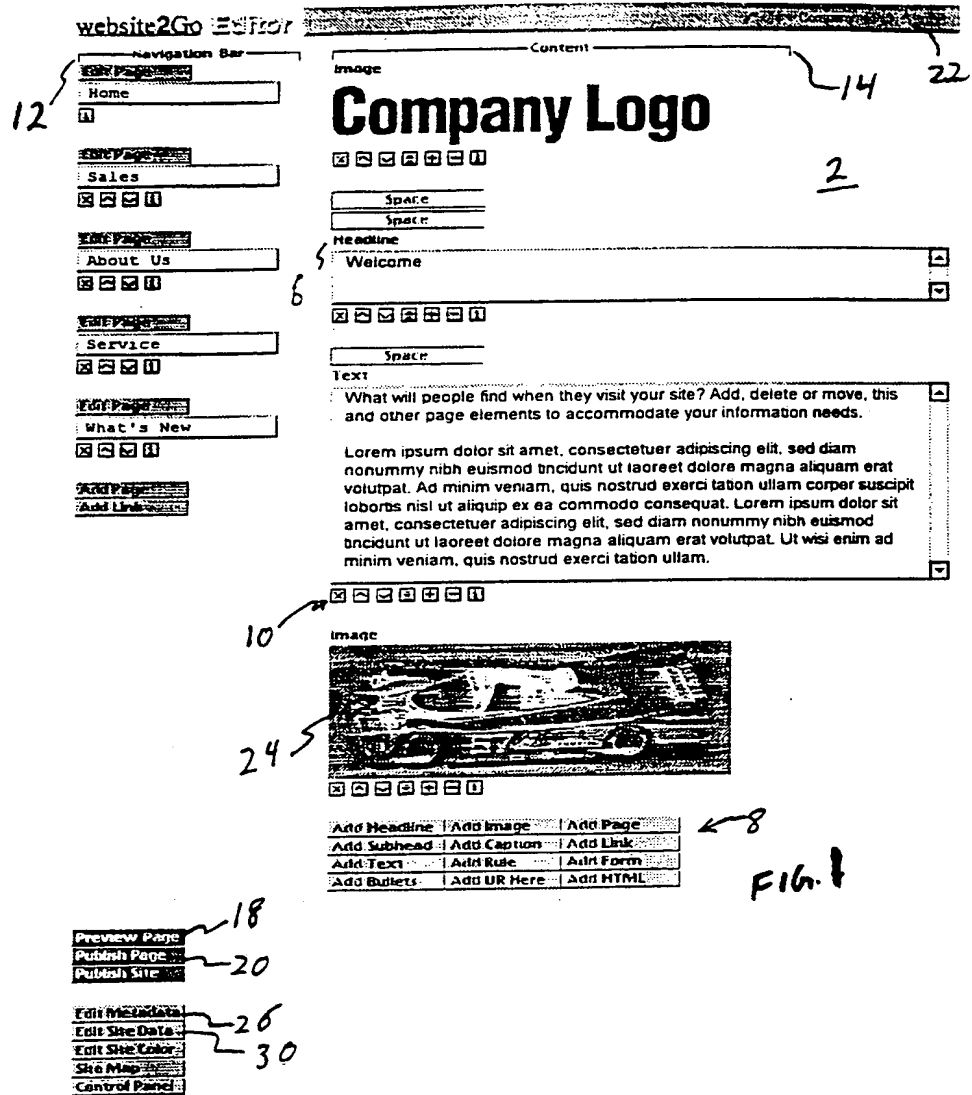
8. A computer-implemented method for development of a web site comprising the steps of accessing a database containing pre-defined templates for each type of element that can be added to pages of a web site by a user, the database being accessed over the Internet by a server, presenting the templates to the user using a browser, the template having content areas and defining a unique name for each added element and a unique identifier for each added element, wherein the content areas can contain each type of element, accepting modifications to the templates by user, and subsequently storing the templates in modified form for public access over the Internet.

9. The computer-implemented method for development of a web site of claim 8, including the step of logging into a web site development service to access the database containing pre-defined templates.

- 20 -

10. The computer-implemented method for development of a web site by a user of claim 8, wherein the location of elements contained in a template and the modified form of the template are identical.

1/25



8 CONTENTS

- ▶ Home
- ▶ Sales
- ▶ About Us
- ▶ Service
- ▶ What's New

Company Name
123 Main Street
Yoratown, NY 23456
USA
(212) 555-4321
(212) 555-1234 fax

Send Us Email

Copyright 1999
Company Name
All rights reserved.

32

Company Logo ~10

Welcome ~ 6

What will people find when they visit your site? Add, delete or move, this and other page elements to accommodate your information needs.


Lorem ipsum dolor sit amet, consectetur
 adipiscing elit, sed diam nonummy nibh euismod
 tincidunt ut laoreet dolore magna aliquam erat
 volutpat. Ad minim veniam, quis nostrud exerci
 tation ullam corper suscipit lobortis nisi ut aliquip ex
 ea commodo consequat. Lorem ipsum dolor sit
 amet, consectetur adipiscing elit, sed diam
 nonummy nibh euismod tincidunt ut laoreet dolore
 magna aliquam erat volutpat. Ut wisi enim ad
 minim veniam, quis nostrud exerci tation ullam.

16

Highlight hot news items or newly added pages here.

- Latest product ships! Find out where it's being sold.
- Lorem ipsum dolor sit amet il diam sanctum il nome dii patre, del officium und quod erat.

POWERED BY
website2Go



24

4

FIG. 2

3/25

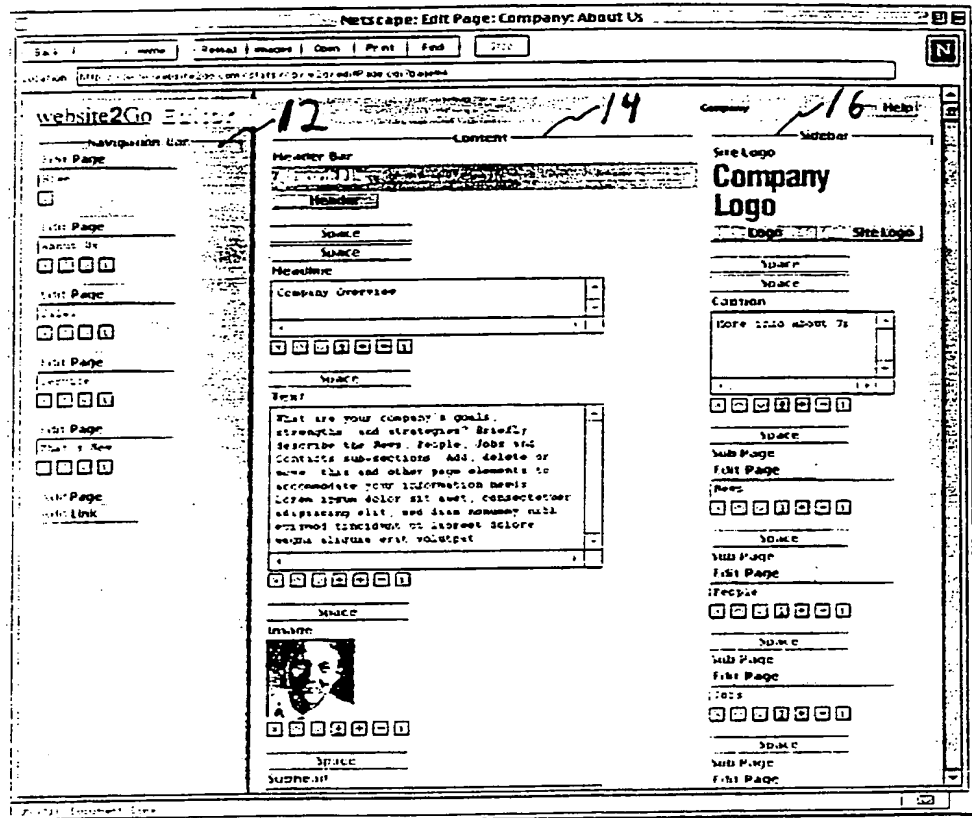


FIG. 3

4/25

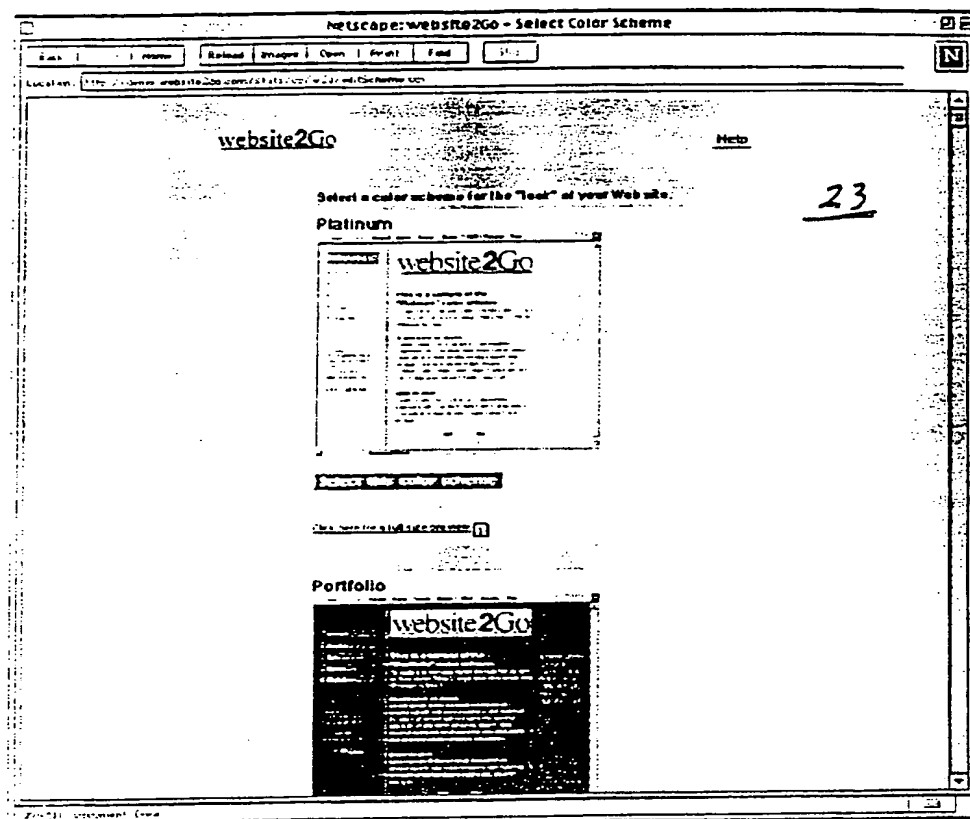


FIG. 4

5/25

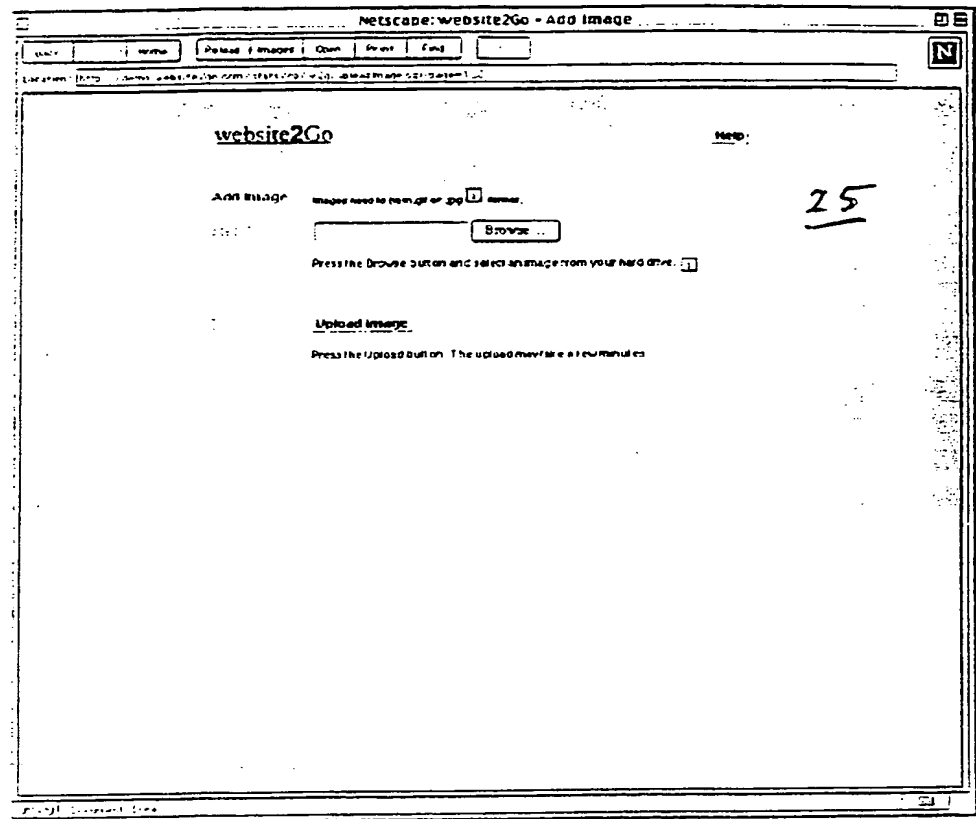


FIG. 5

6/25

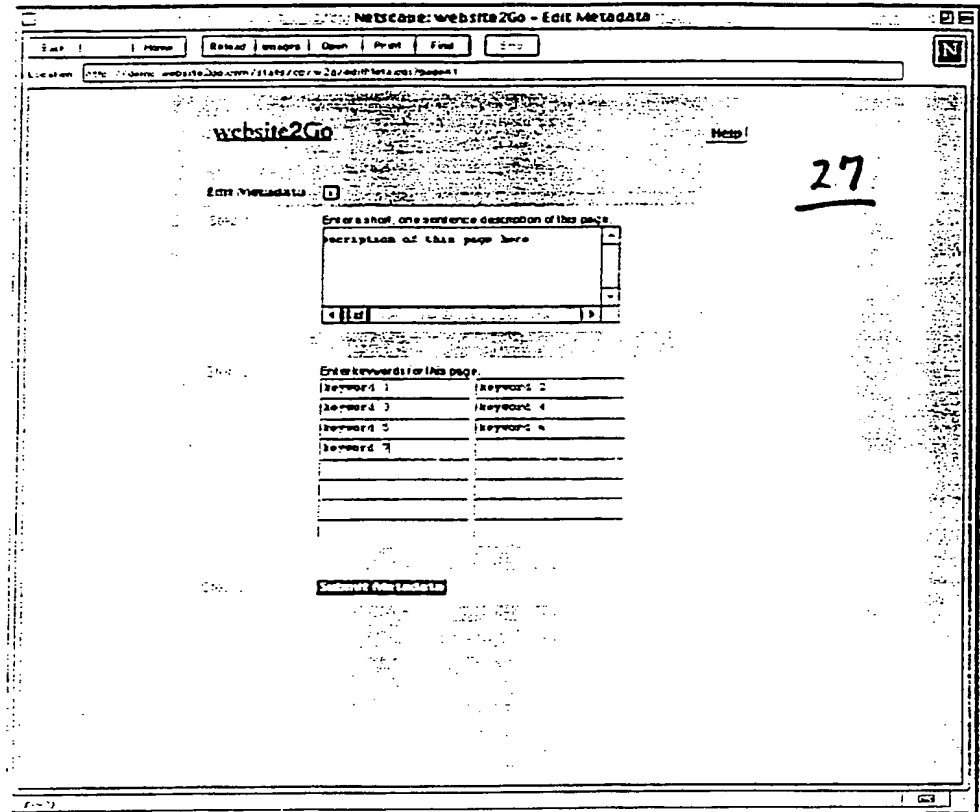


Fig. 6

7/25

28

NETSCAPE: website2Go - Edit Site Data

File Edit View Options Window Help

Location: http://www.website2Go.com/STAFF/COMP/COMPANY/COMPANY28

Return to Editor Help

website2Go

Edit Site Data

Step 1
REQUIRED

Enter a Web Site Name

Company

Step 2
REQUIRED

Enter a Web Site Navigation Bar heading

COMPANY

Step 3
OPTIONAL

Connect the information for Navigation Bar

Contact header

CONTACT

Name

Company Name

Address

123 Main Street
Tomball, TX 28456
USA

City

(212) 555-4321

Phone

(212) 555-1234 fax

Fax

Send us

Send To

Enter Email address

name@company.com

Copyright and/or
note message

Copyright 1999
Company Name
All rights reserved

Step 4
OPTIONAL

Tap and Drag the Navigation Step 1-Step 4

FIG. 7

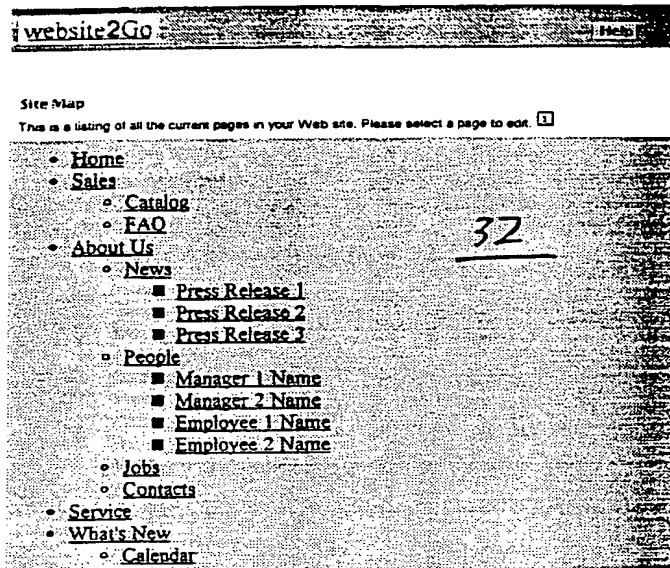


FIG. 8

9/25

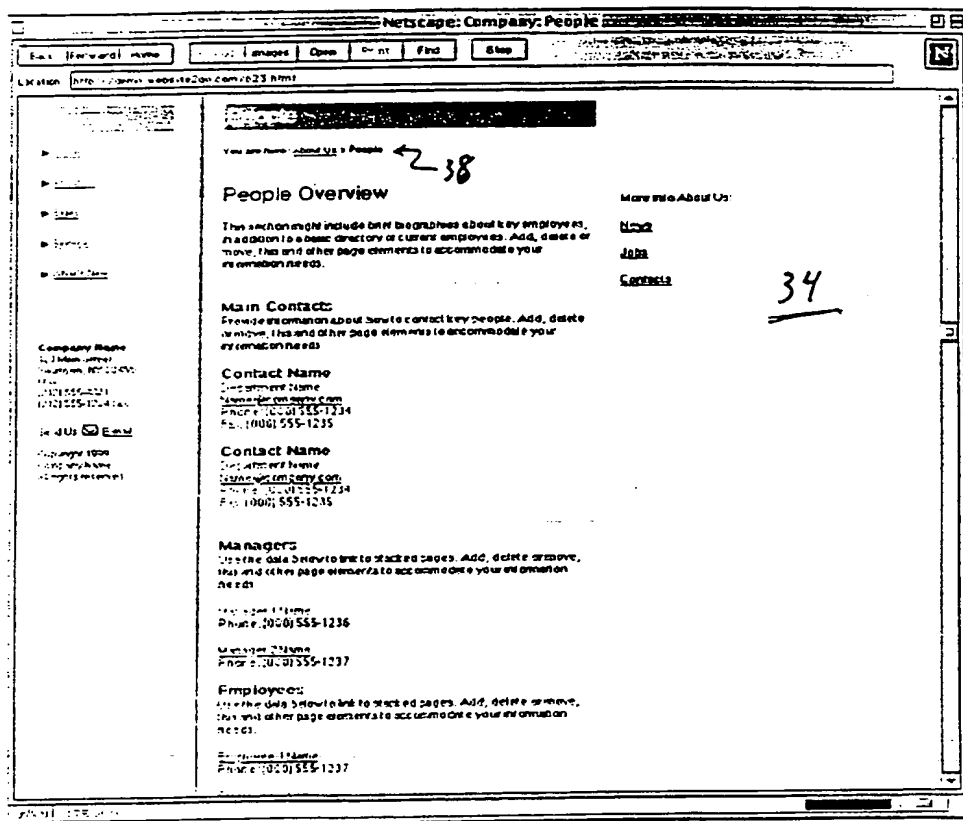


FIG. 9

10/25

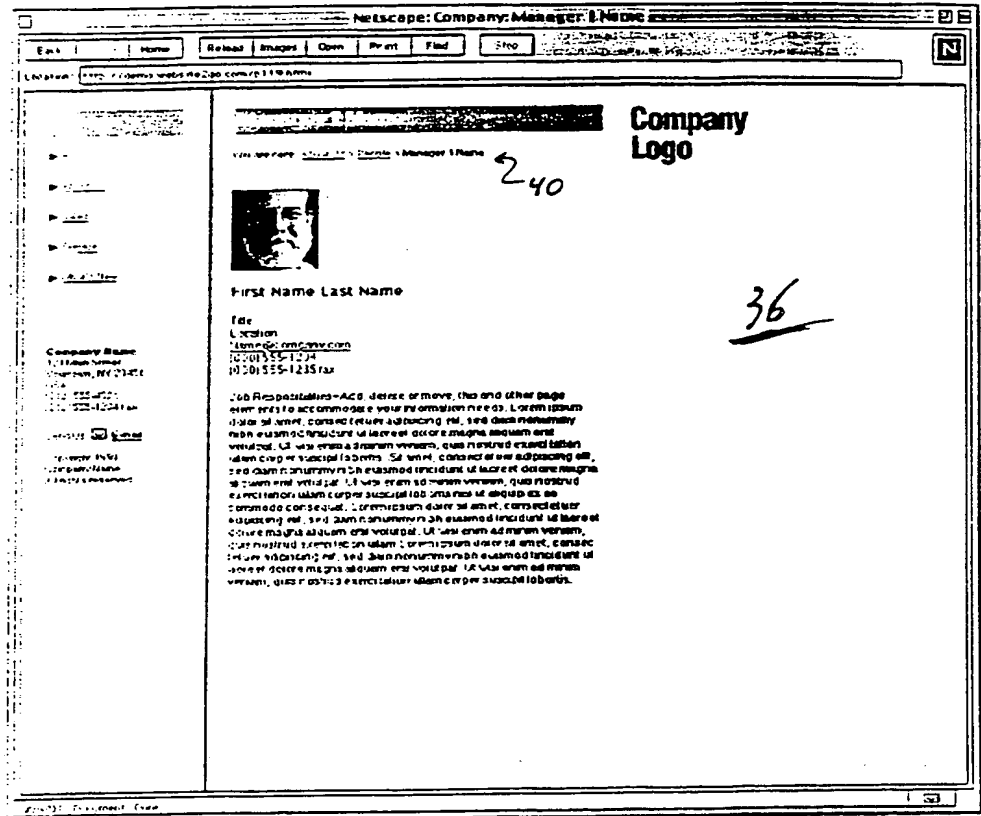
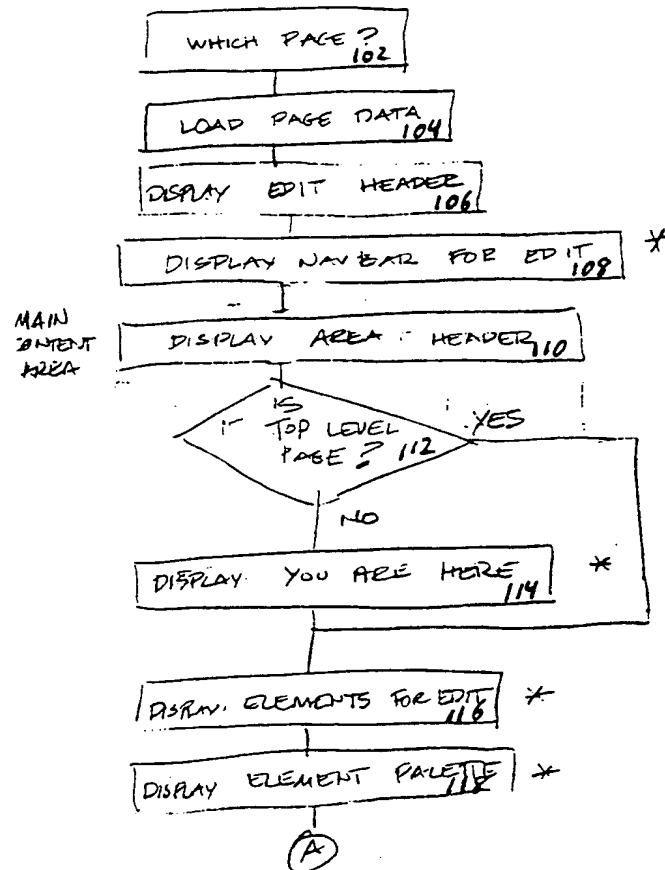


FIG. 10



12/25

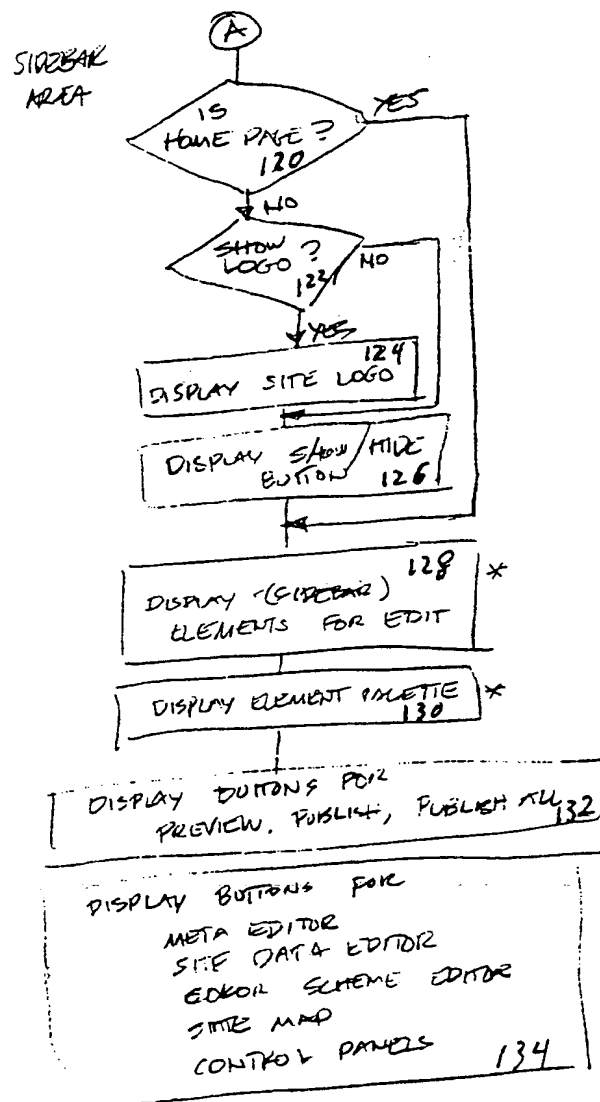


FIG. 12

13/25

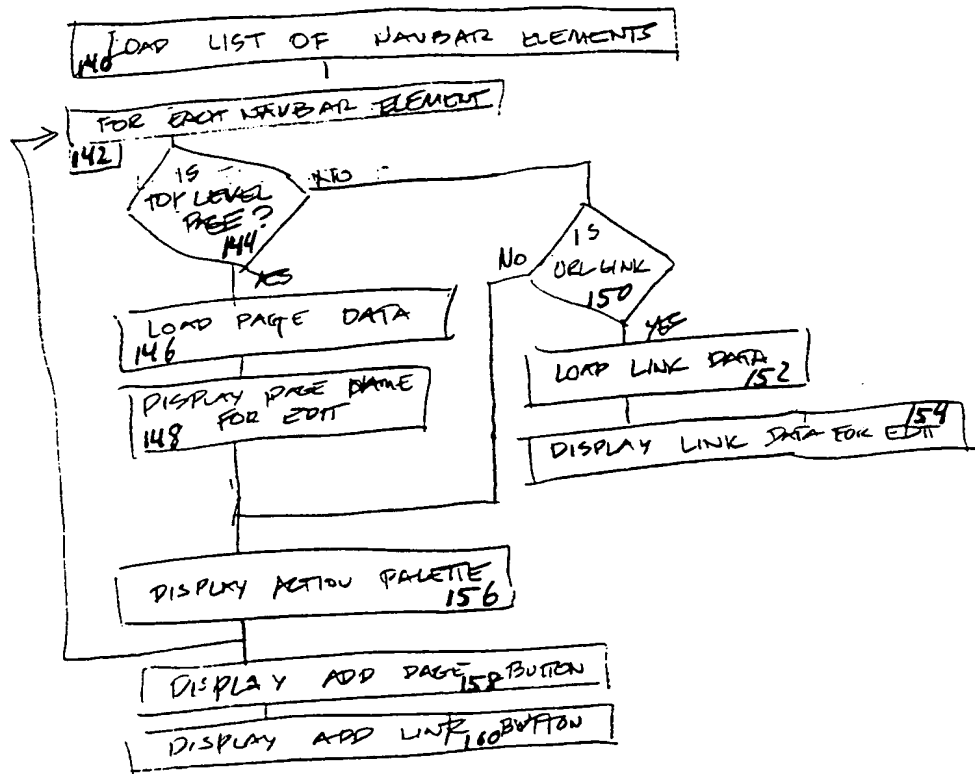


FIG. 13

FOR ALL EDIT DATA ON EDIT SCREEN, NAMES OF POSTED DATA CONTAIN ID FOR ELEMENT, TYPE OF DATA. THESE MAKE UPDATE MORE EFFICIENT.

14/25

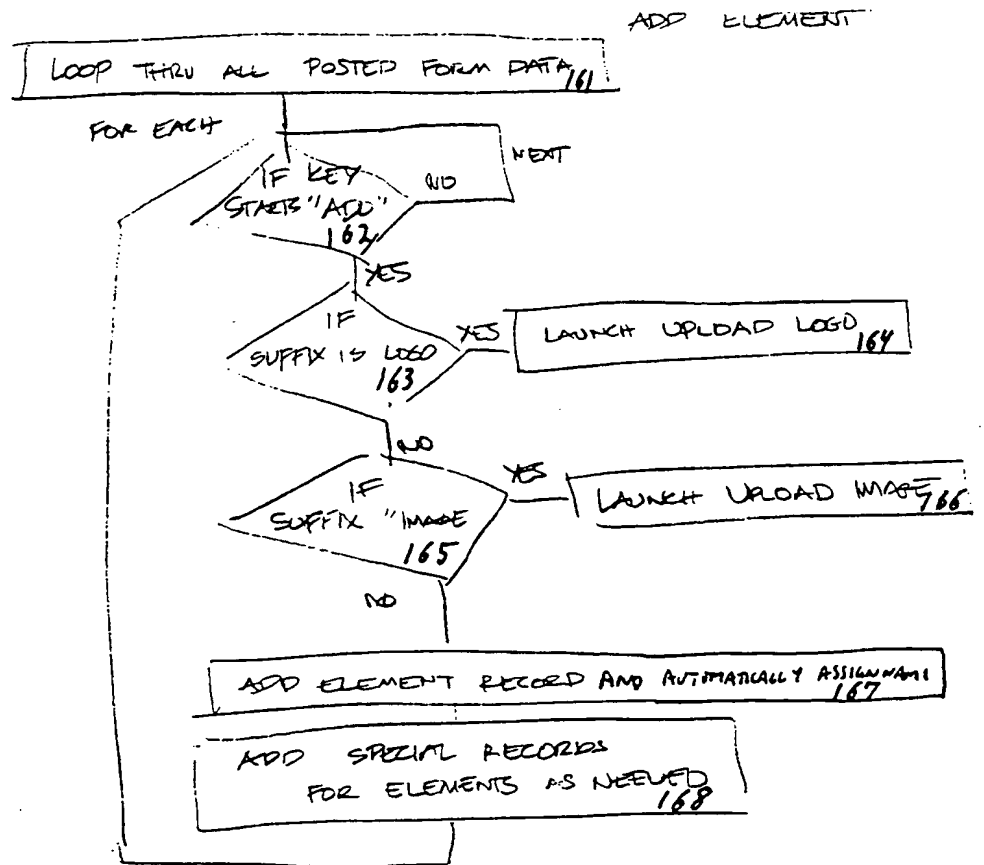


FIG. 14

SPECIAL DATA CURRENTLY FOR: LINKS
 PAGES/SUBPAGES
 ELEMENTS W/ TEXT

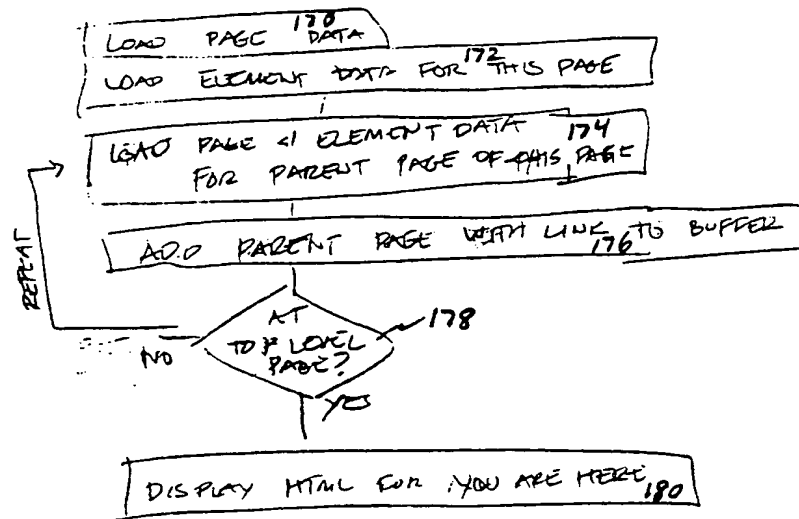


FIG. 15

- EACH ELEMENT HAS A PAGE UPON WHICH IT SITS
- SUB PAGES SIT ON A PAGE
- NAVBAR / TOP LEVEL PAGES SIT ON PAGE ZERO (NONE)

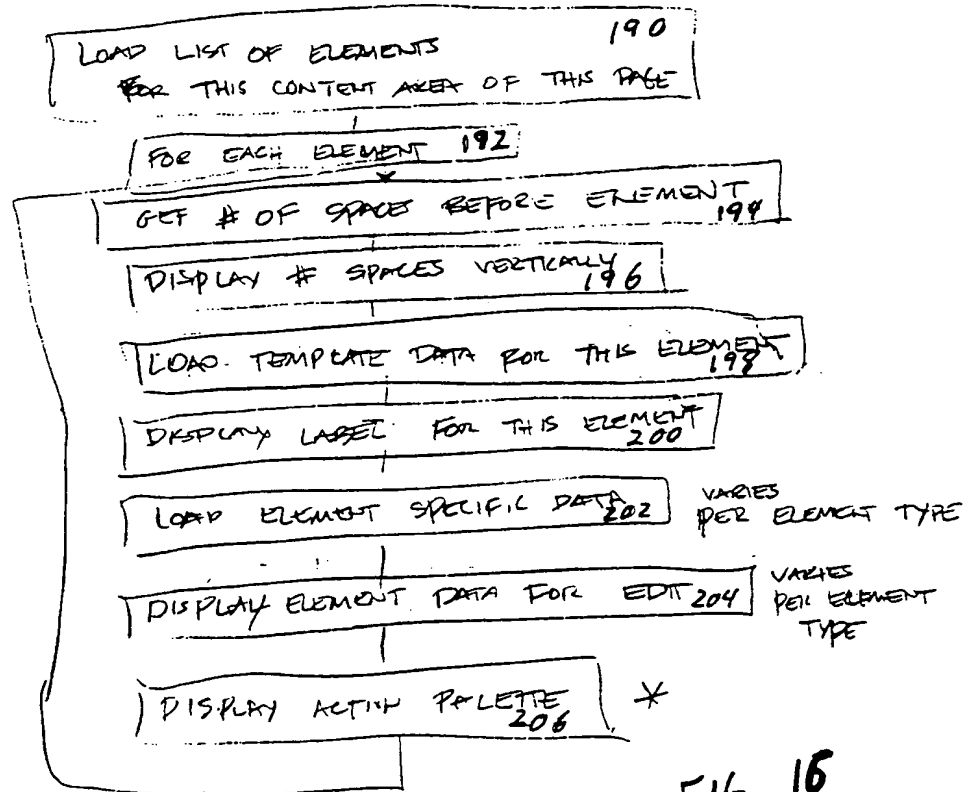
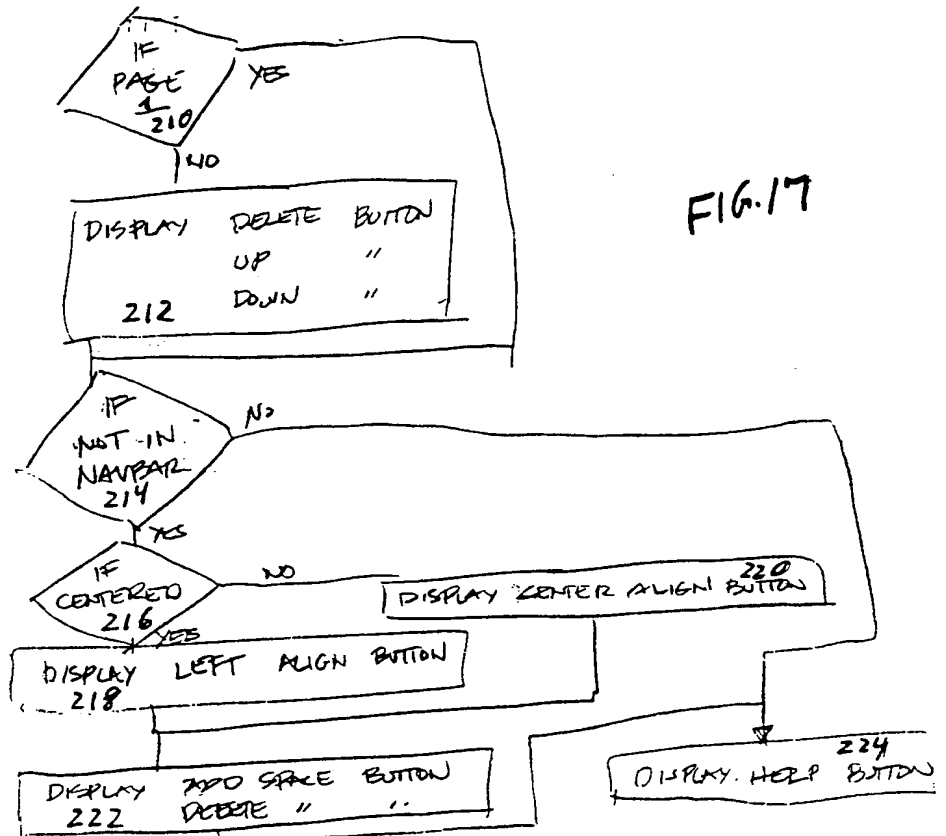
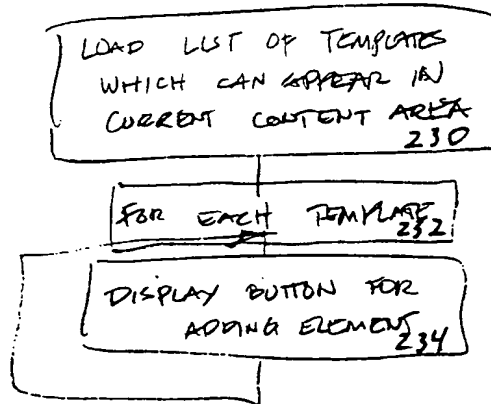


FIG. 16



- EACH BUTTON IS NAMED SUCH THAT "UPDATE PAGE" CAN
EASILY DISPATCH TO THE APPROPRIATE SCRIPT
OR SUBROUTINE. BY NAME "UP-AREA-ELEMENT"
- ACTION PALETTE APPEARS JUST BELOW EACH ELEMENT
IN PAGE EDITOR



notes: width of palette varies with content area

FIG. 18

- Each element has a template record.
this record identifies which content areas each
element may or may not be added to/appear in.

19/25

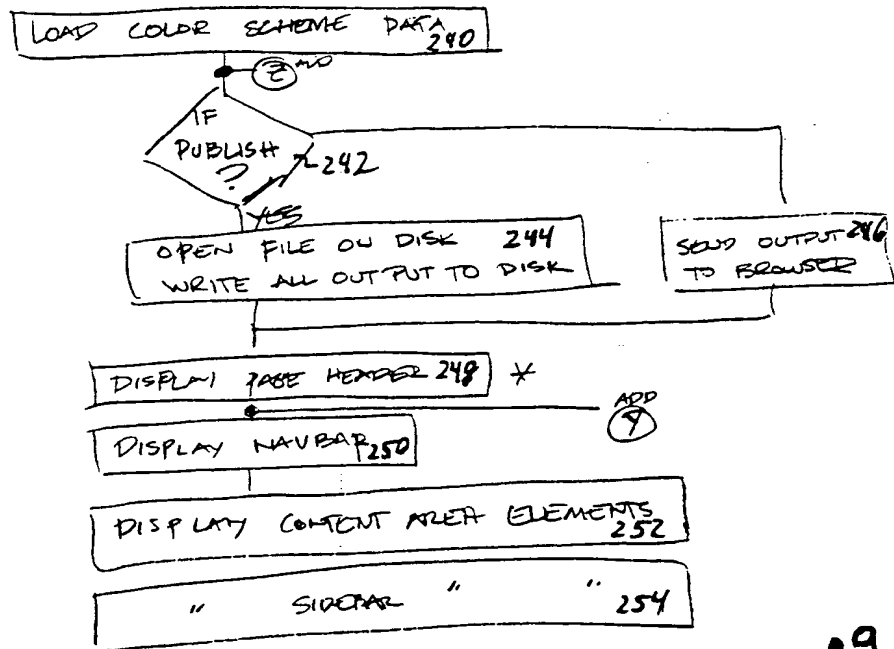
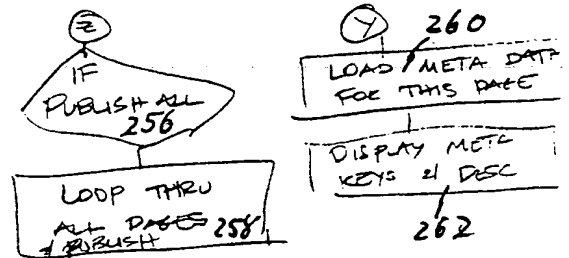


Fig. 19

NOTE:
EACH ELEMENT HAS UNIQUE
DATA TO LOAD - 4 UNIQUE
APPEARANCE



20/25

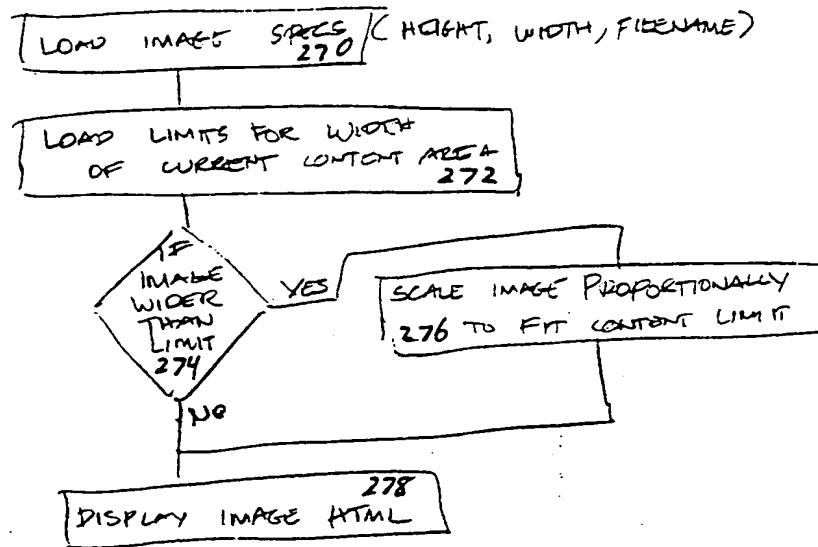


FIG. 20

- EACH CONTENT AREA HAS A WIDTH LIMIT
~~EXCEPT FOR THE MAIN CONTENT AREA~~

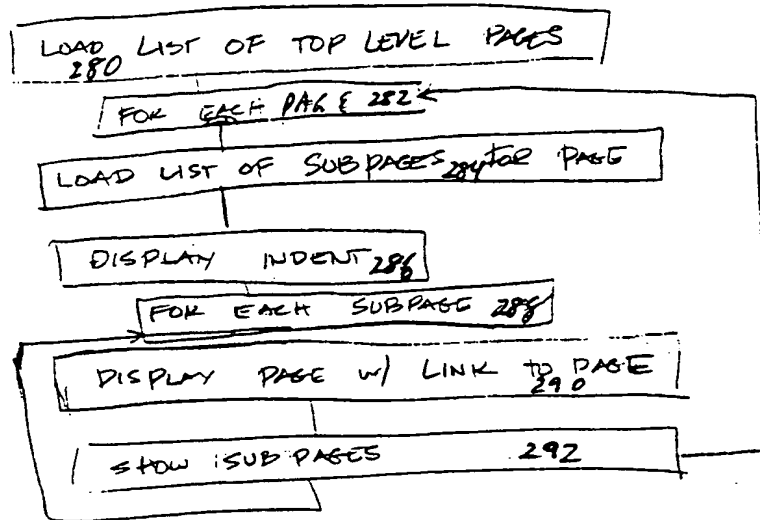


Fig. 21

- LOOPS THRU SUBPAGES FOR EACH PAGE TO DEEPEST LEVEL, SHOWING ALL PAGES.
- EACH LEVEL IS INDENTED FROM LEVEL ABOVE

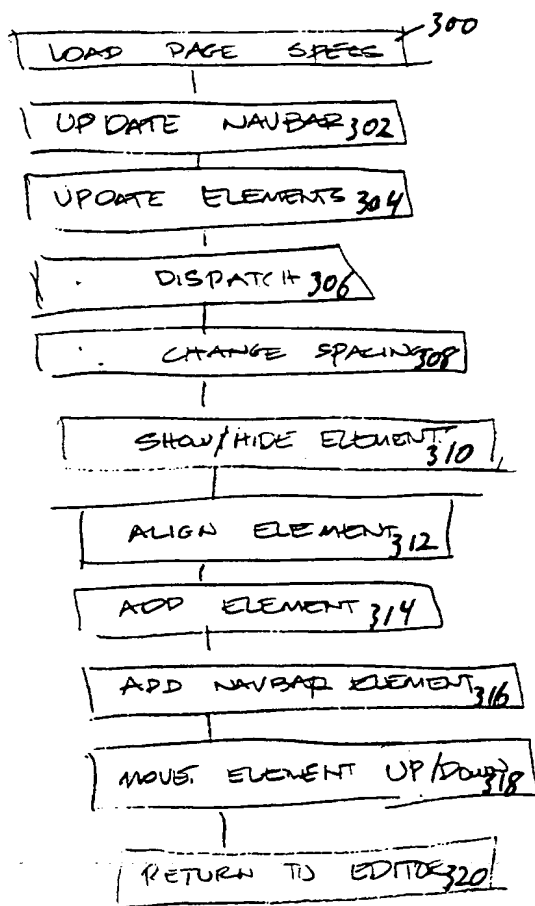


FIG. 22

- EACH STEP HERE IS SUBROUTINE.
- OTHER THAN UPDATE OF TEXT, ONLY ONE ACTION IS NORMALLY CALLED FOR.

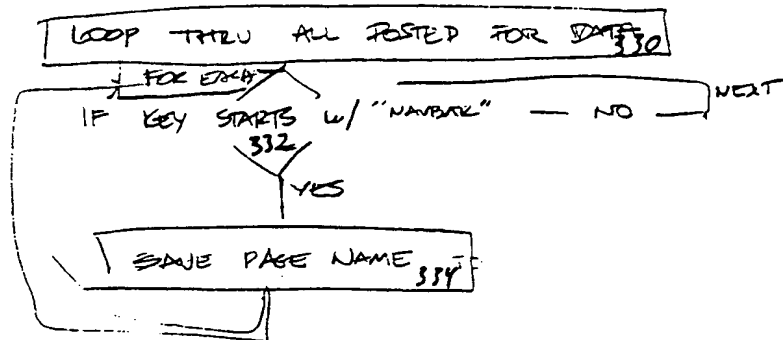
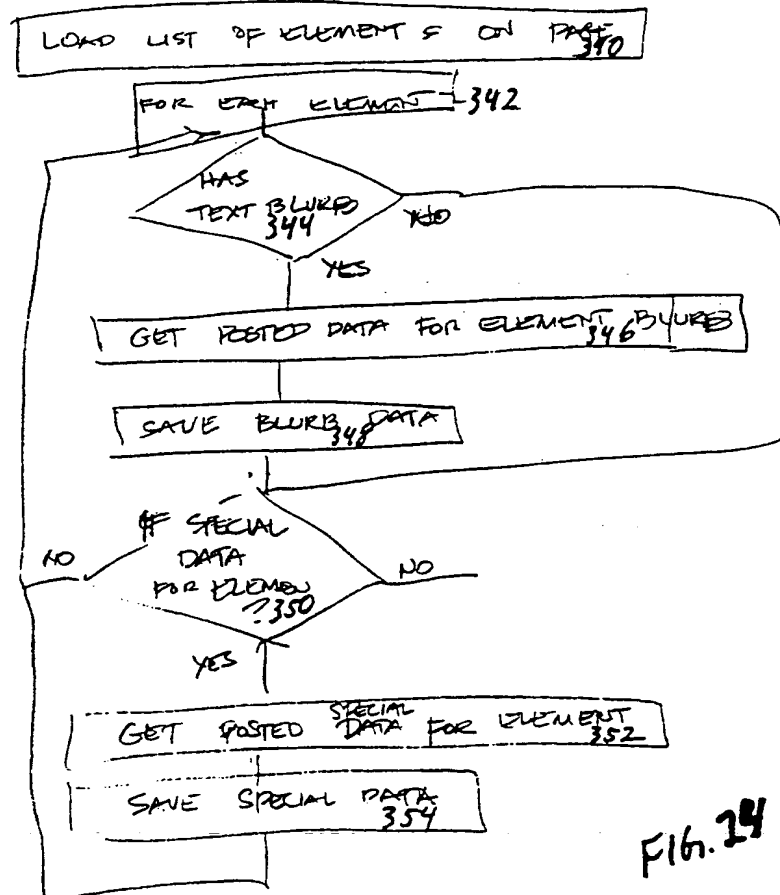
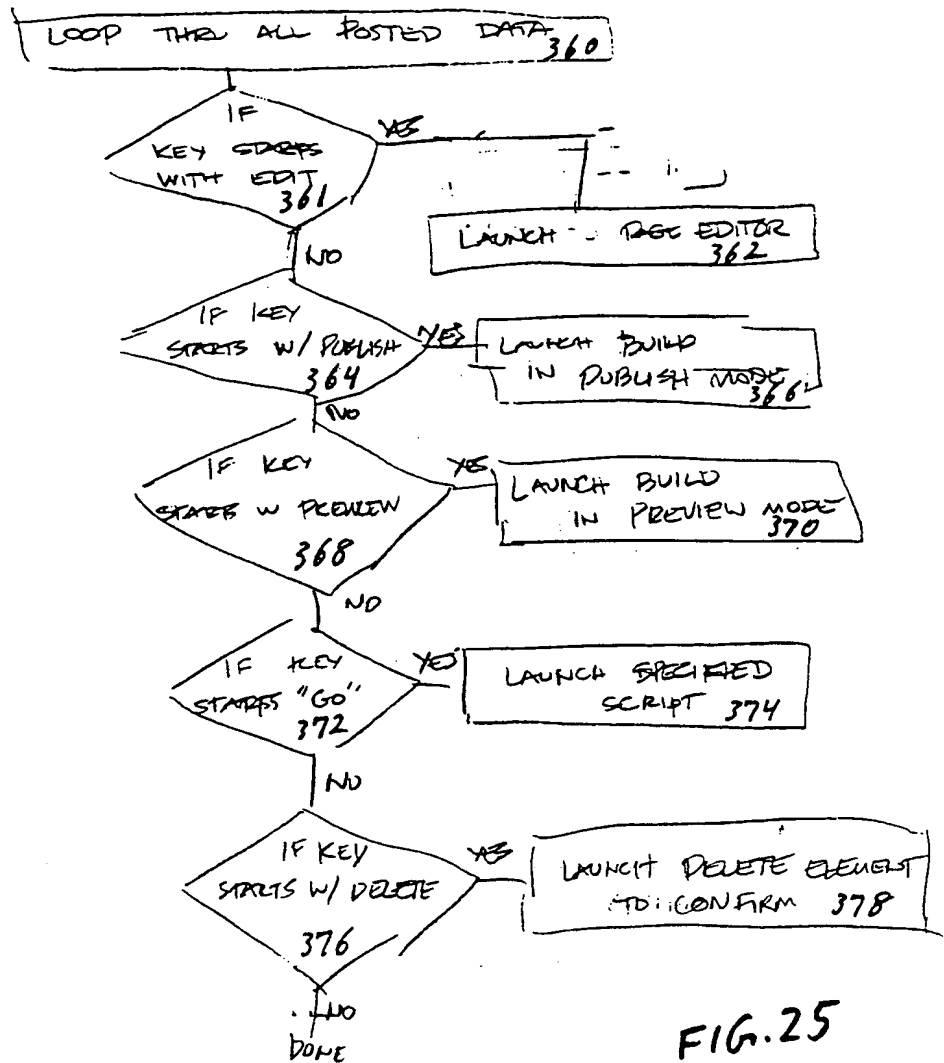


FIG. 23





(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 September 2000 (28.09.2000)

PCT

(10) International Publication Number
WO 00/57314 A3

(51) International Patent Classification⁷: **G06F 17/30.**
17/22, 17/24

(21) International Application Number: PCT/US00/07873

(22) International Filing Date: 24 March 2000 (24.03.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
- 60/126,013 24 March 1999 (24.03.1999) US

(71) Applicant (for all designated States except US): **ATOM-ICWEB** [US/US]: 7713 14th Street, N.W., Washington, DC 20012 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CHAMBERS,**

Stephen, E. [US/US]: 7713 14th Street, N. W., Washington, DC 20012 (US). **DEAR, David** [US/US]: 46 Seabreeze Rd., Ocean Pines, MD 21811 (US).

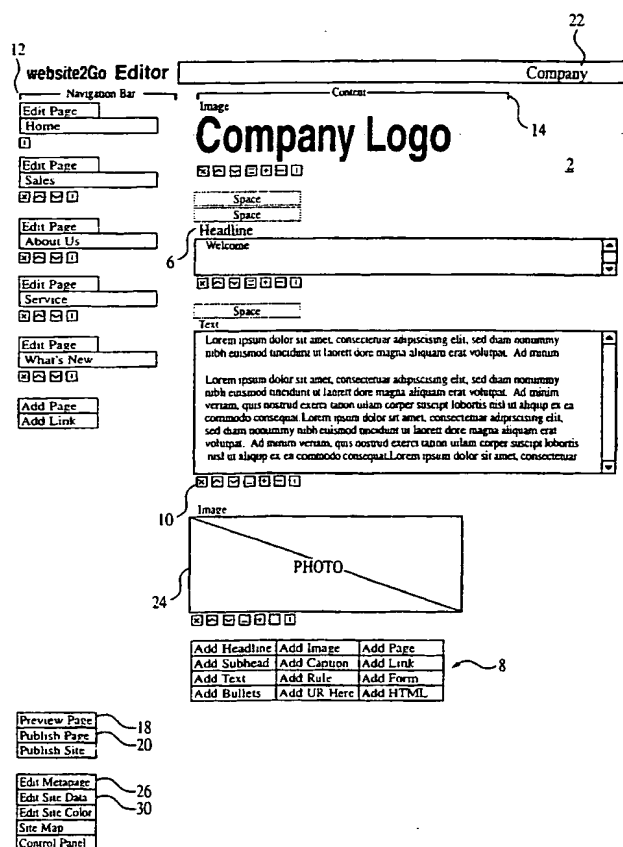
(74) Agents: **DUJMICH, Louis, C.** et al.: Ostrolenk, Faber, Gerb & Soffen, LLP, 1180 Avenue of the Americas, New York, NY 10036 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,

[Continued on next page]

(54) Title: SYSTEM FOR CREATING WEB SITES USING BROWSER



(57) Abstract: A web site development software program provides an editor for modifying templates for each type of element that can be added to published web pages. The template includes various content areas, such as navbar, main content, and sidebar. The location of content areas in the template being edited are the same as the locations of these areas in the published page. Modification of the template defines a unique name for each element added to the content areas, and unique identifier for the element. The hierarchy of page elements that are added is tracked automatically, and an auto-navigation element is generated for each page to allow for simple linked navigation of the web site. The template determines which content areas can contain each type of element, based on size, for example. All text elements can be edited in the editor. All form images such as buttons to add new elements and buttons to act on existing elements are live such that, when clicked, result in immediate updates to the page and database. Button palettes of available elements and available editing functions are provided. From the editor, each page can be previewed exactly as it will appear without impacting the live site. Each web page, or all web pages at once, can be published to the live web site directly from the editor.

WO 00/57314 A3



MC, NL, PT, SE). OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:
22 February 2001

Published:

- *With international search report.*
- *Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Inter. Appl. No.

PCT/US 00/07873

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F17/30 G06F17/22 G06F17/24

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC, IBM-TDB

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SHAO W ET AL: "AGENT ARCHITECTURE FOR SUPPORTING INDIVIDUALIZED SERVICES IN INTERNET APPLICATIONS" IEEE INTERNATIONAL CONFERENCE ON TOOLS WITH ARTIFICIAL INTELLIGENCE, US, LOS ALAMITOS, CA: IEEE COMPUTER SOC, 1998, pages 140-147, XP000887516 ISBN: 0-7803-5215-7	1-4, 7-10
A	abstract page 140, left-hand column, line 20 -right-hand column, line 32 page 143, right-hand column, line 24 -page 144, left-hand column, line 43 --- -/--	5, 6

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

1 December 2000

Date of mailing of the international search report

21/12/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Boyadzhiev, Y

INTERNATIONAL SEARCH REPORT

Intern. Patent Application No.
PCT/US 00/07873

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>WO 98 21672 A (INERGY ONLINE INC) 22 May 1998 (1998-05-22) abstract page 4, line 8 -page 6, line 19 page 10, line 6 -page 12, line 7 -----</p>	1,4,7-10
Y	<p>ANON: "Net Objects FUSION Version 3.0 for Windows User Guide" , CD ROM INCL, INDIANAPOLIS, IN: HAYDEN BOOKS, US, PAGE(S) 8-2-8-11 XP002154447 ISBN: 1-56830-327-0 Chapter 3, 13, 25 page 3-1 -page 3-4 page 13-1 -page 13-8 page 25-1 -page 25-4 -----</p>	1,4,7-10
A	<p>US 5 870 552 A (WILLIAMS V GEORGE W ET AL) 9 February 1999 (1999-02-09) abstract; figures 9,10C column 3, line 40 -column 4, line 44 column 14, line 64 -column 16, line 12 -----</p>	1-10

INTERNATIONAL SEARCH REPORT

Information on patent family members

Inter: onal Application No

PCT/US 00/07873

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9821672 A	22-05-1998	AU 5356598 A	03-06-1998
		AU 9105098 A	08-03-1999
		WO 9909658 A	25-02-1999
US 5870552 A	09-02-1999	AU 705581 B	27-05-1999
		AU 5353896 A	16-10-1996
		CA 2216826 A	03-10-1996
		EP 0818013 A	14-01-1998
		JP 11503251 T	23-03-1999
		WO 9630846 A	03-10-1996

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☒ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.